

NOTE ON GISTEL'S GENERA OF FISHES.

BY DAVID STARR JORDAN.

In 1848, Johannes Gistel of Stuttgart published a peculiarly confused and crabbed volume called *Naturgeschichte des Thierreichs, für höhere Schulen*, containing new generic names offered as substitutes for old ones, and in every department of Zoölogy. Most of the names he proposed to change were regarded by him, often without reason, as being preoccupied. The book seems to have been overlooked by workers in systematic zöology, and in every field.

In this paper I give the names of genera of fishes, as offered by Gistel. Nearly all of these occur in Gistel's introductory pages, these having their pagination in Roman. For a transcript of the names referring to fishes I am indebted to Mr. Barton A. Bean of the U. S. National Museum, and to Mr. C. Davies Sherborn of the British Museum. I have later received a copy of the book itself through the courtesy of Mr. E. P. Van Duzee of the California Academy of Sciences.

Of Gistel's new names, the following seem to be valid:

ABRON Gistel, p. X, replaces *Platystoma* Agassiz.

DAPALIS, p. XI, replaces *Smerdis* Ag. (fossil).

ENIXE, p. IX, replaces *Drepane* Cuvier, and also the substitute name, *Harpochirus* Cantor, 1849.

HYPODYTES, p. VIII, intended to replace *Apistus* or *Apistes* Cuvier; but its use by Quoy and Gaimard is especially mentioned and the language used (highly elliptical) ("*Aspistes* Quoy, Astrol., Fisch.") would indicate that *Apistus longispinis* should be taken as type. This species is type of *Paracentropogon* Bleeker, which name *Hypodytes* should apparently replace.

NOTACMON, p. IX, replaces *Eurynotus* Ag. (fossil).

ODONUS, p. XI, is offered as a substitute for *Xenodon* Rüppell (1835), preoccupied. It is prior to *Erythron* Rüppell and *Pyrodon* Kaup, also offered as substitutes. But Swainson in 1839 called the same genus *Zenodon*, but whether offered by Swainson as a substitute or as a characteristic piece of carelessness is not made clear, most likely the latter. Fowler accepts *Zenodon* as a substitute for

Xenodon, instead of *Erythrodon*. The question of *Zenodon* versus *Odonus* may be left for later decision.

PIRENE, p. IX, replaces *Dascyllus* Cuvier, on account of the earlier *Dascillus*. But *Dascyllus* has been sometimes spelled *Dascillus*.

PERIURGUS, p. X, replaces *Microps* Ag. (fossil).

PROSCINETES, p. X, replaces *Microdon* Ag. (fossil); this is prior to *Polypsephis* Hay, 1899, also a substitute for *Microdon*.

SECUTOR, p. IX, replaces *Deveximentum* Fowler. *Secutor* is apparently intended as a substitute for *Equula*, but Gistel indicates as his type *Equula insidiator*. He says: "*Equula* (*E. insidiator*, Fisch.) *Secutor* N." *Centrogaster equula* Gmelin is, however, the tautotype of *Equula* Cuv., which is a synonym of *Leiognathus* Lac. *Secutor* (*Deveximentum*) is tangibly different from *Leiognathus* (*Scomber edentulus* Bloch) as a genus or sub-genus.

STREPHON replaces *Brontes* C. & V. if distinct from *Ar_{es}* C. & V.

STROTES replaces *Platysomus* Ag. (fossil).

In case names differing from older ones only in gender or some minor point in spelling are to be rejected as preoccupied, the following additional names of Gistel would become tenable:

ANALITHIS, p. X, intended to replace *Platyrhina* M. & H. on account of the prior *Platyrhinus*. This antedates Garman's substitute name of *Discobatus*.

ALAZON, p. X, intended to replace *Pæcilia*, on account of the earlier *Pæcilus*.

ENGLOTTOGASTER, p. IX, to replace *Oreinus* on account of *Oreina*. But the genus *Oreinus* is of doubtful validity.

FURO, p. IX, to replace *Eugnathus* Ag., (fossil) on account of the prior *Eugnatha*.

MYRMILLO, p. X, to replace *Mustelus* Cuv. on account of the prior *Mustela* L. It is equivalent to *Pleuracromylon* Gill.

PEDITES, p. IX, to replace *Macropodus* Lac., an ill-formed name, on account of the prior *Macropus*. This may perhaps be allowed.

PRENES, to replace *Scatophagus* Cuv., on account of *Scatophaga*. This is prior to Cantor's substitute name of *Cacodoxus* (1849).

RHADAMISTA, p. VIII, is offered instead of *Ctenodus* (fossil) on account of the prior *Ctenodon*.

AGOREION, p. X; presumable type *Acanthoderma spinosum* Agassiz (fossil). This is offered as a substitute for "*Scleroderma* Agassiz," used in Fungi, and in the form of *Sclerodermus* for a genus of bees. But I find no genus "*Scleroderma*" in Agassiz's works. The name is probably a slip of memory, for *Acanthoderma* Agassiz (1848), which is really preoccupied, *Acanthoderma* Cantraine (1835); on this supposition *Agoreion* may be provisionally accepted in place of *Acanthoderma*.

SCROPHA, p. VIII, is offered in place of *Ceratodus* (fossil), on account of *Ceratodon*.

Other names suggested as substitutes are plainly inadmissible. These among fishes are the following, arranged in the order given by Gistel (the alphabetical order of the names to be displaced):

CARCHARIAS, p. VIII, for *Acanthias* Risso, on account of the prior *Acanthia*. But *Acanthias* is a synonym of *Squalus* L., as properly restricted, and *Carcharias* is twice preoccupied.

PELONECTES, p. VIII, for *Acanthodes* Ag., said to be preoccupied, which it is not, but is replaceable by the original form *Acanthoëssus* Ag.

GREMILLA, p. VIII, for *Acerina* Cuvier, but *Acerina* Gùldenstädt, *Cernua* Schäfer and *Gymnocephalus* Bl. & Schn. are older.

ADIAPNEUSTES, p. VIII, substitute for *Acrodus* Ag. (1838), wrongly regarded as preoccupied by *Acrodon* Zimm. (1840).

HISTIODROMUS, p. VIII, for *Anastomus* Gronow, 1763; revived by Scopoli, 1777, therefore not preoccupied by *Anastomus* Illiger, 1835.

NOMALUS, p. VIII, for *Ancylodon*, preoccupied by another substitute name; *Macrodon* Schinz (1822).

CERDO, p. VIII, as substitute for *Asellus* Klein. Klein mentions *Asellus* only in a footnote under *Callarias* (*Gadus*). The name "*Cerdone*s" appears in connection with the cod-fish, and *Cerdo* may be regarded as a synonym of *Gadus* L.

SCROFARIA, p. VIII, a needless substitute for *Ausonia* Risso, itself a synonym of *Luvarus* Raf.

GLISCUS, p. VIII, substitute for *Blochius* Volta (fossil) for no reason, save Gistel's objection to personal names, in his scheme allowable only among plants and the very lowest animals.

THALASSOKLEPHTES, p. VIII, a substitute for *Caninoa* Nardo, because it is improper to compare a prince (Charles Lucien

Bonaparte, prince of Canino) to a shark; "*Ist denn der Prinz von Canino mit einen Hayen vergleichlich?*"

CAPELLARIA, p. VIII, for *Chironectes* Cuvier, preoccupied, but already replaced by *Antennarius* Cuv.

CÆSO, p. VIII, a substitute for "*Chrysophrys* Rüppell," that is for *Chrysophrys berda* Rüpp.; a synonym of *Sparus*.

ECHEMYTHES, p. VIII, an unexplained substitute for *Chryso-tosus* Lac., itself a synonym of *Lampris*.

RONCHIFEX, p. VIII, a substitute for *Cossyphus* Cuv., preoccupied, but *Bodianus* Bloch and *Harpe* Lac., are still older names for the same genus.

PODAGER, p. IX, a substitute for *Gerres* Cuvier, on account of *Gerris*, an older name of a genus of insects. *Podager* is preoccupied in birds and thus cannot replace *Gerres*. We must use *Catochaenum* Cantor (1849) if *Gerres* is discarded; but *Gerres* and *Gerris* are words from different roots.

SYNERGUS, p. IX, a substitute for *Megalurus* Ag. (fossil) preoccupied in mammals. But *Synergus* is also preoccupied (Hartig, 1840, a genus of bees). I have therefore proposed the new name *Urocles* Jordan as a substitute for both *Megalurus* and *Synergus*, the type being *Megalurus lepidotus* Ag.

ELLOPS, p. IX, a substitute for *Helops*, a genus of sturgeons, ἔλλοφ being the original Greek form.

APECHES, p. IX, a substitute for *Johnius* Bloch, a personal name.

NEANIS, p. IX, a substitute for *Julis* Cuvier, regarded as preoccupied by *Julus* L. But the two words are of different origin and meaning.

EXOLES, p. IX, a substitute for *Lamia* Bon., itself a synonym of *Lamna* Cuvier.

APEPTON, p. IX, a substitute for *Gouania* Nardo, a personal name.

ANEPISTOMON, p. IX, a substitute for the preoccupied name *Leptorhynchus* Smith, itself a synonym of *Ophisurus* Lac., as restricted.

SPANIUS, p. IX, a substitute for the preoccupied name, *Lep-tosoma* Nardo, which is itself probably a synonym of *Monochirus* Raf.

MAINA, p. IX, a substitute for *Lethrinus* Cuvier, regarded as preoccupied by *Lethrus* Fabricius, a genus of beetles.

MASSARIA, p. IX, a substitute for *Liparis*, on the ground that the latter is used in botany.

ORODINUS, p. IX, a substitute for *Lophotes* Giorna, 1803, for no reason.

PASCHALTESTES, p. IX, a substitute for *Macquaria* Cuv. & Val., a personal name, before it was applied to the river Macquarie.

ARNION, p. X, an unexplained substitute for *Mugil* L.

PLECTROSTOMA, p. X, a substitute for *Oxyrhina* Ag., preoccupied. Both names are synonymous with *Isurus* Raf.

EUPORISTA, p. X, a synonym for *Plagusia* Bon, preoccupied. Both names are synonymous with *Symphurus* Raf.

DEPORTATOR, p. X, a substitute for *Plotosus* Lac., on account of the similarity of *Plotosus* to *Plotus* L.

DEMIURGA, p. X, a substitute for *Rhina* Bonaparte, a genus of rays, on account of *Rhina* (Oliver, 1807), a genus of beetles. But *Rhina*, in this connection dates from Schneider (1801). The name *Rhina* was also employed by various writers in place of *Squatina*, its first binomial use in this connection dating from 1810, although occurring in polynomial reprints from Klein at earlier periods.

If *Rhina* is used for *Squatina*, the name *Demiurga* should replace *Rhamphobatis* Gill (1861), itself also a substitute for *Rhina* Schneider.

CREOTROCTES, p. X, a substitute for *Pelamys* C. & V. (1831) subsequent to *Palamita* Bonaparte, 1832, also a substitute for the same preoccupied name, itself a synonym of *Sarda* Cuvier, 1829. If *Sarda* Plumier (1802) (= *Ocyurus* Gill) is accepted *Palamita* would hold.

DENIUS, p. X, a substitute for *Sargus* Cuvier, preoccupied; both are synonyms of *Diplodus* Raf.

BORBORODES, p. X, a substitute for *Scymnus* Cuvier, preoccupied in beetles. But the substitute name of *Scymnorhinus* Bonaparte (1846) has priority.

PEROPTERA, p. XI, a substitute for *Perioptera* Gistel, but I find neither name elsewhere.

ORTHOCOLUS, p. XI, a substitute for *Thymallus* Cuv., regarded as preoccupied by *Thymalus* Latreille (1803), a genus of beetles. But the root-words of the two names are different, and as a substitute for *Thymallus*, *Choregon* Minding (1832) is prior to *Orthocolus*.

TROMPE, p. XI, 109; an unexplained substitute for *Toxotes* Cuvier (1817), perhaps on account of the later *Toxotus* (1821).

APHOBUS, p. XI, a substitute for *Trachidermus* Heckel, preoccupied as *Trachyderma*. But *Centridermichthys* Richardson (1844) for the same group has priority over *Aphobus*.

CHÆTICHTHYS, p. XI, a substitute for *Trichodon* Cuvier, regarded as preoccupied by *Trichoda* and *Trichodes*, but the root-meaning of *Trichodon* is different.

LITHULCUS, p. XI, a substitute for *Trichopodus* (*Trichopus*) Lac. (1802, p. 125), because used in botany. But the same genus had been already called *Osphromenus* by the same author (p. 116).

ENDYNAMA, p. XIII, 108; a substitute for *Chrysophrys* Cuvier, itself a synonym of *Sparus* L., as restricted.

EUPNŒA, p. 105; type *Plagusia lactea* Bon., a synonym of *Symphurus* Raf.

ATTILUS, p. 109; a needless synonym of *Umbrina* Cuvier, "*der Schattenfisch*."

MELANTHA, p. 109; a needless synonym of *Corvina* Cuvier, "*die Seekröhe*."